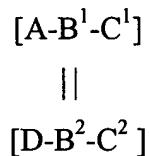


The listing of claims will replace all prior versions, and listings, of claims in the application. Please amend claims 45 and 47 as follows. Please add new claims 48 and 49 as follows.

**Listing of Claims:**

Claims 1-24. (Cancelled).

Claim 25. (Previously Amended) An empty polyspecific MHC complex comprising an sc-MHC class II molecule comprising linked in sequence an MHC  $\beta$  chain-peptide linker-MHC  $\alpha$  chain, the MHC molecule having the general formula:



wherein,

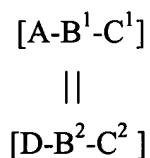
- a) A represents at least one empty sc-MHC class II molecule,
- b) B1, B2 are each independently a joining molecule,
- c) C1, C2 are each independently an effector molecule or -H, and
- d) D represents at least one empty sc-MHC class II molecule, ligand binding molecule or -H.

Claim 26. (Original) A polyspecific MHC complex comprising an empty sc-MHC class II molecule comprising a peptide binding groove, the complex being represented by the formulae A-B-C, B-A-C, or A-C-B, wherein A is at least one sc-MHC class II molecule, B is a joining molecule and C is an effector molecule or -H, provided that when the complex is represented by A-C-B, -C- is not -H.

Claim 27. (Original) A loaded polyspecific MHC complex formed by contacting the polyspecific MHC complexes of claim 25 or 26 with a presenting peptide under conditions which

form a specific binding complex between the presenting peptide and at least one of the empty sc-MHC class II molecules.

Claim 28. (Previously Amended) A polyspecific MHC complex fusion molecule comprising an sc-MHC molecule with peptide binding groove, the MHC molecule comprising linked in sequence an MHC  $\beta$  chain-peptide linker-MHC  $\alpha$  chain, the complex being represented by the following formula:



wherein,

- a) A represents at least one empty sc-MHC class II molecule comprising a recombinantly fused presenting peptide,
- b) B1, B2 are each independently a joining molecule,
- c) C1, C2 are each independently an effector molecule or -H, and
- d) D represents at least one empty sc-MHC class II molecule, ligand binding molecule or -H.

Claim 29. (Original) A polyspecific MHC fusion molecule comprising a sc-MHC class II molecule comprising a peptide binding groove, the complex being represented by the formulae: A-B-C, B-A-C, or A-C-B, wherein A is at least one sc-MHC class II molecule comprising a recombinantly fused presenting peptide, B is a joining molecule and C is an effector molecule or -H, provided that when the complex is represented by the formulae: A-C-B, -C- is not H.

Claims 30-37. (Cancelled).

Claim 38. (Previously Presented) The polyspecific MHC complex of any of claims 25, 26, 28, or 29, wherein the polyspecific MHC complex comprises the complex in Figure 9B.

Claim 39. (Previously Presented) The polyspecific MHC complex of any of claims 25 or 28, wherein the joining molecules are each selected from the group consisting of a helix-turn-helix motif and a dendrimer particle.

Claim 40. (Previously Presented) The polyspecific MHC complex of any of claims 26 or 29, wherein the joining molecule is selected from the group consisting of a helix-turn-helix motif and a dendrimer particle.

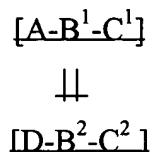
Claim 41. (Previously Presented) The polyspecific MHC complex of any of claims 25 or 28, wherein the ligand binding molecule is selected from the group consisting of an immunoglobulin, a single-chain antibody, an Fv, and a receptor ligand.

Claim 42. (Previously Presented) The polyspecific MHC complex of claim 41, wherein the immunoglobulin, single-chain antibody, or Fv is capable of binding a cell surface target selected from the group consisting of CD2, CD3, CD4, CD8, CD28, CD40, CD45, CTLA4, and Fas.

Claim 43. (Previously Presented) The polyspecific MHC complex of claim 41, wherein the receptor ligand is selected from the group consisting of FasL, CD80, and CD86.

Claim 44. (Previously Presented) The polyspecific MHC complex of any of claims 25 or 28, wherein the effector molecules are each selected from the group consisting of a cell toxin other than ricin or diphtheria toxin, a chemotherapeutic drug, a radionuclide, a protein tag, a hormone, a fluor, an enzyme, an enzyme substrate, a cofactor, an inhibitor, a ligand, a hapten, biotin, a carbohydrate, and a fatty acid.

Claim 45. (Currently Amended) The An empty polyspecific MHC complex of claim 44, comprising an sc-MHC class II molecule comprising linked in sequence an MHC  $\beta$  chain-peptide linker-MHC  $\alpha$  chain, the MHC molecule having the general formula:



wherein,

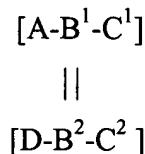
- a) A represents at least one empty sc-MHC class II molecule,
- b) B1, B2 are each independently a joining molecule,
- c) C1, C2 are each independently an effector molecule or -H, and
- d) D represents at least one empty sc-MHC class II molecule, ligand binding molecule or -H,

wherein each effector molecule is a protein tag, and wherein the protein tags are each selected from the group consisting of 6xHIS, EE epitope, and myc epitope.

Claim 46. (Previously Presented) The polyspecific MHC complex of any of claims 26 or 29, wherein the effector molecule is selected from the group consisting of a cell toxin other than ricin or diphtheria toxin, a chemotherapeutic drug, a radionuclide, a protein tag, a hormone, a fluor, an enzyme, an enzyme substrate, a cofactor, an inhibitor, a ligand, a hapten, biotin, a carbohydrate, and a fatty acid.

Claim 47. (Currently Amended) The A polyspecific MHC complex of claim 46, comprising an empty sc-MHC class II molecule comprising a peptide binding groove, the complex being represented by the formulae A-B-C, B-A-C, or A-C-B, wherein A is at least one sc-MHC class II molecule, B is a joining molecule and C is an effector molecule or -H, provided that when the complex is represented by A-C-B, -C- is not -H, wherein the effector molecule is a protein tag, and wherein the protein tag is selected from the group consisting of 6xHIS, EE epitope, and myc epitope.

Claim 48. (New) A polyspecific MHC complex fusion molecule comprising an sc-MHC molecule with peptide binding groove, the MHC molecule comprising linked in sequence an MHC  $\beta$  chain-peptide linker-MHC  $\alpha$  chain, the complex being represented by the following formula:



wherein,

- a) A represents at least one empty sc-MHC class II molecule comprising a recombinantly fused presenting peptide,
- b) B1, B2 are each independently a joining molecule,
- c) C1, C2 are each independently an effector molecule or -H, and
- d) D represents at least one empty sc-MHC class II molecule, ligand binding molecule or -H,

wherein each effector molecule is a protein tag, and wherein the protein tags are each selected from the group consisting of 6xHIS, EE epitope, and myc epitope.

Claim 49. (New) A polyspecific MHC fusion molecule comprising a sc-MHC class II molecule comprising a peptide binding groove, the complex being represented by the formulae: A-B-C, B-A-C, or A-C-B, wherein A is at least one sc-MHC class II molecule comprising a recombinantly fused presenting peptide, B is a joining molecule and C is an effector molecule or -H, provided that when the complex is represented by the formulae: A-C-B, -C- is not H, wherein the effector molecule is a protein tag, and wherein the protein tag is selected from the group consisting of 6xHIS, EE epitope, and myc epitope.